

**IN THE CLAIMS:**

Claims 1-10 (cancelled)

11 (new). A method for producing electronic video signals representative of color images of a scene, comprising the steps of:

providing a sensor having a color filter thereover;

providing a lens system that focuses light from said image onto said color filter and sensor; and

producing electronic video signals from the output of said sensor;

wherein said step of providing a sensor having a color filter thereover includes providing a sensor comprising a sensor array having alternate lines offset by half a pixel spacing and diagonally coupled pixels on successive lines, and providing a color filter having repeating R, G, and B patterns offset on successive lines so that R pixels are arranged diagonally, G pixels are arranged diagonally, and B pixels are arranged diagonally.

12 (new). The method as defined by claim 11, further comprising the step of interposing a low pass prefilter before said color filter.

13 (new). The method as defined by claim 11, wherein said step of providing a lens system comprises providing a motion picture film camera type of lens system.

14 (new). The method as defined by claim 12, wherein said step of providing a

lens system comprises providing a motion picture film camera type of lens system.

15 (new). Apparatus for producing electronic video signals representative of color images of a scene, comprising:

a sensor having a color filter thereover;

a lens system that focuses light from said image onto said color filter and sensor; and

means for producing electronic video signals from the output of said sensor;

said sensor comprising a sensor array having alternate lines offset by half a pixel spacing, and diagonally coupled pixels on successive lines, and said color filter having repeating R, G, and B patterns offset on successive lines so that R pixels are arranged diagonally, G pixels are arranged diagonally, and B pixels are arranged diagonally.

16 (new). Apparatus as defined by claim 15, further comprising a low pass prefilter interposed before said color filter.

17 (new). Apparatus as defined by claim 15, wherein said lens system is a motion picture film camera type of lens system.

18 (new). Apparatus as defined by claim 16, wherein said lens system is a motion picture film camera type of lens system.

19 (new). Apparatus as defined by claim 15, wherein said means for producing electronic video signals from the output of said sensor includes a first register coupled with R pixels of a group of lines, a second register coupled with the G pixels of said group of lines, and a third register coupled with the B pixels of said group of lines.

20 (new). Apparatus as defined by claim 16, wherein said means for producing electronic video signals from the output of said sensor includes a first register coupled with R pixels of a group of lines, a second register coupled with the G pixels of said group of lines, and a third register coupled with the B pixels of said group of lines.

21 (new). Apparatus as defined by claim 17, wherein said means for producing electronic video signals from the output of said sensor includes a first register coupled with R pixels of a group of lines, a second register coupled with the G pixels of said group of lines, and a third register coupled with the B pixels of said group of lines.